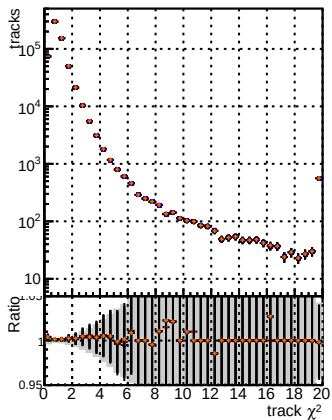
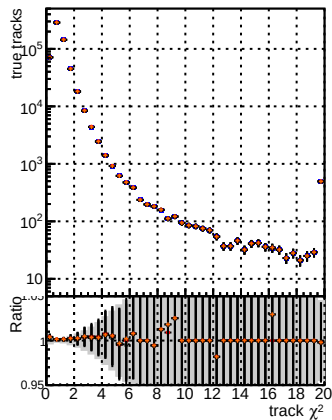


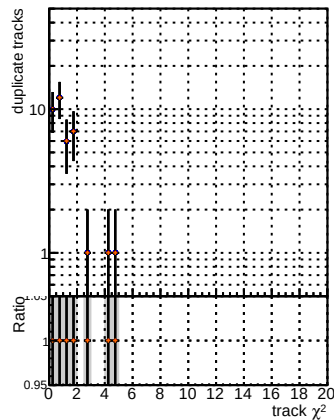
N of reco track vs normalized χ^2



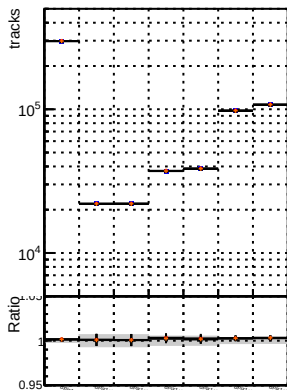
N of associated (recoToSim) tracks vs normalized χ^2



N of associated (recoToSim) looper tracks vs normalized χ^2



N of reco track vs. s



The figure consists of two vertically stacked plots sharing a common x-axis representing 1000 tracks.

- Top Plot:** The y-axis is labeled 'true tracks' and is on a logarithmic scale with major ticks at 10^4 and 10^5 . The plot shows a series of data points (red circles) connected by a black line, representing the true number of tracks for each of the 1000 trials. The values are mostly clustered around 10^5 , with some points reaching up to 10^6 .
- Bottom Plot:** The y-axis is labeled 'Ratio' and is on a linear scale from 0.95 to 1.05. The plot shows the ratio of estimated tracks to true tracks for each trial. The data points (red circles) are clustered around a horizontal black line at 1.0, indicating that the estimation is generally accurate.

The figure consists of two vertically stacked panels sharing a common x-axis. The x-axis is divided into 10 bins, each containing a black dot representing the data point and a vertical error bar. A solid black line represents the fit, and a grey shaded region represents the uncertainty.

Top Panel: The y-axis is labeled 'fake tracks' and is on a logarithmic scale with major ticks at 10^3 and 10^4 . The data points show a general upward trend from left to right, starting around 2×10^3 and ending near 8×10^3 .

Bottom Panel: The y-axis is labeled 'Ratio' and is on a linear scale from 0.95 to 1.05. The data points are clustered around a ratio of 1.0, with the fit line and uncertainty band centered on this value.